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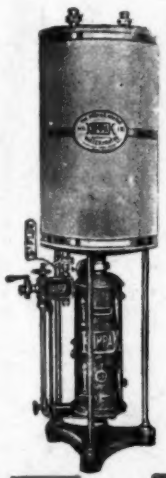

THE FACT

THE MAINTENANCE EXPENSE AND THE DEPRECIATION OF KOMPAK AUTOMATIC WATER HEATERS ARE INSIGNIFICANT.

THE REASON

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THE LONG-LANDRETH-SCHNEIDER CO.

NEW BRUNSWICK NEW JERSEY

KOMPAK

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VIEW OF COKE HANDLING AND SCREENING PLANT
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Camden Coke Company, Camden, N. J.

The satisfactory method of conveying, screening and storing coke is clearly described in our catalog 30.

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FORMERLY THE AMERICAN GAS LIGHT JOURNAL

Vol. CX, No. 11 NEW YORK, MARCH 15, 1919 Whole No. 3184

Capitalizing the Lure of Light to Rent and Sell Stores

Experience Has Proved that the Side Street Store Can Be Made Rentable by Outside Lighting—Once Rented the Continuance of the Lights Will Keep It So Since Their Lure Can Be Relied Upon to Bring Customers to the Occupants

By J. E. BULLARD

All over the country men who operate in commercial real estate on any large scale find at one time or another that they have a row of stores on their hands that is difficult to rent. Many of these men have successfully solved the problem by installing rows of gas arc lamps in front of these stores. These lights have been installed and maintained by the real estate men and burned till ten o'clock at night or all night at their expense. Lights always attract people. Accordingly the stores have readily been rented and since the people attracted by the light traded at these stores, the storekeepers prospered and the stores remained rented. The cost of the lamps, maintenance and gas never proved as expensive as the rent which would have been lost if the lamps had not been installed. In some cases this cost has been added to the rental of the stores.

Just how this works out in specific cases is shown by the experience of a real estate owner in Detroit, Mich. This man built a row of stores on a street that at the time was off the main business street. Though it was little more than a block away from the large stores no one appeared to be desirous of locating in this section.

One evening he met the sales manager of the gas company at a club meeting. They were very good friends and he asked him how he could rent those stores. The sales manager replied that it was very simple. All he needed to do was to install a row of gas lights in front of the stores and burn them all night. The real estate man did not at once enthuse over the proposition. It appeared too commonplace to him. The sales manager, however, was confident he was right. He was so confident that he said to the real estate owner:

REAL ESTATE DEALERS SOLVE PROBLEM OF RENTING STORES BY INSTALLING ATTRACTIVE GAS ARC LAMPS IN FRONT OF THEM

ARC LAMPS BURNED TILL 10 P. M. OR ALL NIGHT AT EXPENSE OF REAL ESTATE DEALER

Backing the Proposition as a Sure Winner

"I am so sure that you will rent those stores if you will follow my advice that I am going to make you this proposition. You install those lamps, burn them as I have recommended for one month, and if you have not rented at least one store in that time I will take back the lamps and pay for the gas you have used myself. If you do rent at least one store you keep the lamps. You can't lose. If you rent the stores you gain in your income. If you fail to rent one you pay me nothing."

This proposition could not be refused. The lamps were installed and in less than a month nearly every store was rented. Soon this street became a very prosperous small store section.

There are in New York City real estate men who make it a practice to brilliantly light the fronts of new rows of stores. They have found this a quick and cheap way in which to rent them. Some of the gas lighting salesmen in that city have found the real estate man—the real estate man who specializes in store property—an excellent customer. When an order is received from him it is usually a goodly order, one that the salesman can bring back to the office without being in the least bit ashamed of it.

That Saloon Corner White Elephant

In every city there are real estate owners or agents who are already convinced of the value of outdoor lighting as an aid in renting new stores or who can easily be convinced that this is the case. The following letter mailed to all owners of and agents for retail store property will help pave the way. It should by all means go to every one responsible for the renting of stores which have been used as saloons. There is more or less of a tendency to use these stores where they are located in apartment houses for new apartments. If they are properly lighted there will be little difficulty in renting them for candy and soda water establishments. There is no reason why any saloon location should not be rented for other business purposes. Lighting it up on the outside so that people can readily see what a desirable location it is will help rent it. This is the letter to mail:

Mr. .....

.....

.....

Dear Sir:

Do you rent stores? Do you find it hard to rent any of these stores or to retain tenants in them?

Some of the most progressive real estate men in this and other cities have discovered a method of renting stores to permanent tenants. The same method has been tried out the country over, in cities of all sizes, from those of a few thousand population up to the largest city on the continent, and has never been known to fail.

It consists of creating a "White Way," by installing outdoor display gas lamps in front of each store window. This can be done at a cost less than the amount represented by the lost rent of a store which is vacant for a few months. Also as it makes business better for the storekeepers, they are more prosperous and can afford to pay higher rent than they could if the store fronts were darker. It works out to the profit of everyone concerned.

Fill out and mail the enclosed post card, and one of our lighting specialists will call at no expense to you, and show you what has already been done with outdoor lighting along these lines.

Yours very truly,

.....Gas Company,

.....

New Business Manager.

It will be noted that in this letter the term lighting specialists is used instead of lighting salesman. It has been the writer's experience that the term lighting specialist will result in more replies to the letters than the term lighting salesman. When you offer to send a specialist, you are promising to give the prospect some real information. When you send him a salesman, you are probably sending a man whose one thought is to get the order. He is not so likely to render real service to the customer. The gas lighting man should be trained so that he is really a specialist. He should know enough about his service so that his advice will be real value to the prospect. Unless this is done the gas company can never expect to secure the best results from gas lighting. More commercial gas lighting troubles can be traced directly to poor salesmanship, to the lights being installed before the prospect is really sold on gas lighting than to any other source. Improving the quality of the salesmanship employed is probably more important than making improvements along any other line.

Making It Easy for Him to "Bite"

It is very good practice to enclose a return envelope in every letter mailed. With some lists it will even pay to enclose a stamped post card, one that is all ready to mail as soon as the man signs his name. It may pay to go even farther than this. It may pay to typewrite the prospect's name and address on the card so that all he will have to do will be to mail the card without even going to the trouble of signing his name. The easier it is made to send for the lighting specialist the more people will send for him.

Probably the best form of post card to use is one that has no printed matter on the address side and nothing on the other side but a request for the lighting specialist to call and a place for the address of the prospect. On the card should be placed in plain language the statement that the prospect is placing himself under no obligation by mailing in the card. The printed matter on the back of the card may well be as follows:

.....Gas Company,

.....City.

Gentlemen:

With the distinct understanding that this request places me under no obligation whatsoever, please have your lighting specialist call at no expense to me to give me information in regard to your new gas lighting proposition.

Name.....

Address.....

It is a mistake to expect that many post cards will

be mailed in. Many prospects who are ready to be sold will not take the trouble to mail the cards in or will delay doing so for so long a time that they forget about them. The only way to get results from letters mailed out to real estate men and owners of real estate is to have salesmen follow up the letters within a week from the time they have been mailed. The letter will have paved the way for the salesman, and more sales will result than would have been the case if no letters had been employed.

Every gas territory needs to be far more intensely cultivated than it can be where the mails and advertising is relied upon alone. All this effort must be followed up, must be backed up by the work of salesmen.

Not for One Second in 96 Years Have New York Companies Gas Coals Burned Out

To Maintain Tradition Sixty-nine Years Ago When Plant Was Moved Uptown Burning Embers Were Heaped into a Huge Pail and Used to Start Fires in Uptown Plant

Ninety-six years ago this month, the first gas company of New York City was chartered. It was called the New York Gas Light Company, and it was established "for the purpose of better lighting the said city and the buildings, manufactories and houses therein." On the twenty-sixth day of March, this pioneer corporation received the right "to manufacture, make and sell gas, to be made of coal, oil, tar, peat, pitch or turpentine or other materials."

A little group of men put their heads together one day in 1822 and decided it could be done—that their city of 17,000 houses would eagerly welcome a light which would do away with the bothersome oil lamp. So they formed their little company and placed their big idea before the lawmaking body at once, but it was not until the following March that their charter was granted. In those days New York proper lived down around Battery Park and Franklin Square. The gas company built its first works on Center Street, not far from the Tombs, and there it started its "home fires" which have burned brightly ever since. For twenty-seven years this plant supplied gas to the city, growing steadily—so steadily—that larger quarters became a necessity. As a result the works were moved uptown to East Twenty-first Street. Truly may it be said that those "home fires" have never burned low, because when that change was made in 1850 the burning embers were heaped into a huge pail and carried from the old to the new plant, where they continued to burn and glow. Not for one second since the first day of business have the gas coals burned out.

The First Gas-Lighted House

In a city boasting of a population of about 125,000 the company had not unnaturally anticipated a rushing business but, strange as it may seem, at first no one dared to install the "burning air." It was for the gas company to prove the merits of its new illuminant. And it did! One evening strollers in Franklin Square fancied they saw a fire at No. 7 Cherry Street. They hastened to the street, where were gathered crowds of gaping awestruck citizens gazing, from a respectfully safe distance, at an illuminated mansion from which came no flames. They waited expectantly for the house to burn up or burn down and when, long after Knickerbocker bedtime, nothing happened, their astonishment was greater than ever.

Waiting for Business to Come

The next day everyone was talking about No. 7 Cherry Street and the man behind its walls. But down on Center Street, the president of the first gas company was making plans for the business he knew would not be long in coming. By lighting his own home with gas, Samuel Leggett had set New York's tongues wagging.

The Leggett mansion was a three-story brick house with a garret. It was in the home center of early New York aristocracy. A few doors away at No. 1 Cherry Street, George Washington had lived as President of the United States, while John Hancock had received his guests at No. 5 Cherry Street.

Wood Gas Mains

The gas that Samuel Leggett introduced into his house was made from resin. This gave a light of excellent quality for that period, but the gas mains, fashioned, as were the water mains, of trunks of trees, were less scientific in construction. Gas was conducted from the corner of Hester and Rynders Streets, now Center Street, to Cherry Street. Through Battery Park men and women strolled to the Leggett mansion to watch possible developments. They were certain the solid timbers and the mellow red bricks would crumble to ashes.

But no amount of fear displayed by a backward population worried Samuel Leggett. Bowling Green and Greenwich Street would follow his lead, he knew, as soon as they discovered that the "burning fire" was harmless. He was a man of big ideas and forethought and he knew that the oil lamp would soon be a thing of the past. And so, while the city speculated as to the feasibility of gas illumination, he was preparing to furnish the gas.

It seemed as though Mr. Leggett were a born president. When in 1817 some capitalists decided to open a bank and hired De Witt Clinton to obtain a charter for them, they chose Mr. Leggett to head their institution. A bank charter then was about as easy to get as is the Victoria Cross to-day, but through Clinton's influence the charter was obtained, and the Franklin Bank, with headquarters in the Square, came into being. The bank's first act was to discount Clinton's note for $80,000.

Didn't Dress Up to the Office

Always genial, Samuel Leggett was the antithesis of his severely stern wife. Mrs. Leggett needed no suffrage privilege to make her master of the household and she was as fastidious about personal appearance as her husband at times was indifferent. Often the neighbors would see the little woman follow her husband to the door, scan him carefully and then hear her say in an unmistakably critical voice, "Samuel, is thy cravat straight?" and the guilty Samuel would hasten to shift the back of his cravat to where the front had no business to be.

Although Mr. Leggett was as staunch a Quaker as his wife, he was vastly more tolerant and easygoing. With his six sons and seven daughters, he was affectionate and mild, but his wife ruled him as well as the children. And when he went so far as to permit his son, Samuel, Jr., to be tutored by Doctor Muhlenberg, that he might become an Episcopalian clergyman, Mrs. Leggett drew the line at this digression and persuaded her son to give up his aim. Samuel, Jr., obeyed, but after his parent's death married an Episcopalian descended from a crowned head of England.

Perhaps the most extraordinary act for a Quaker to be famed for was Mr. Leggett's gift to Flushing of a church built with the understanding that persons of all faiths might worship therein. This broadmindedness and the handsomeness of the gift made him popular at Whitestone, where he lived during the months he was not domiciled in Cherry Street. Thomas Leggett, his father, had been a large landowner in Westchester. He was the grandson of the first Gabriel Leggett, who came to America in 1661, from Essex County, England, and he traced his ancestry to Helmingino Leget, High Sheriff of that county in 1404. Other descendants of Gabriel Leggett believe the original name came from the fact that in Queen Anne's time one of the family was the Pope's legate and adopted the name Legate, which through generations gradually assumed a new spelling.

However that may be, the Leggett family was a notable one a century ago. Samuel Leggett was, with his brothers, among the noted merchants of the times. A cousin, William Leggett, established *The Critic*, a weekly journal which later was united with the *New York Mirror*. In 1829 this same cousin became associated with William Cullen Bryant on the *Evening Post*.

Early Consumption by No Means Staggering

When Samuel Leggett first introduced gas into his home he was forty-one years old. He was born on October 4, 1782, and died on January 5, 1847. Down on old Cherry Street, an arch of the Brooklyn Bridge rises from the spot where four score and sixteen years ago those first gas jets bravely flickered and sent out warm greetings to a chilly and unreceptive populace. Surrounding the arch are buildings in which to-day gas has come to be so much a part of the comfort of everyday life that it is taken for granted. Between five and six o'clock of any 1919 winter afternoon almost as much gas is distributed as all New York used at the time Samuel Leggett became a gas pioneer.

Ninety-six years of achievement have meant the steady growth of the gas jet. Its flame has continually grown brighter with the years and its cost to the consumer has gradually declined from the $10 per 1,000 cu. ft. which prevailed for years after 1823, down to the present price, which is actually less than the cost of manufacture.

During these nearly one hundred years the once humble gas jet has blossomed out with a family of great esteem, for all its descendents have been accepted and popularly acclaimed. Its economical granddaughters—the gas range and the gas water heater—and its male descendants who have so splendidly upheld the lighting and the industrial honors of the family, have won their way into the hearts and the homes and the business establishments of the grandsons and the granddaughters of the very people who laughed at the Cherry Street experiment. What better recompense could be asked by anyone or anything—even a gas jet?—*Gas Logic*.

Looking at Labor Turnover Expense from New Angle—Accident Hazard

A. H. Young Traces the Steps of Inducting the New Man into His Allotted Tasks—Relation of Physical Condition to Work Assigned

The industrial accident hazard created by labor turnover and methods of reducing the hazard were discussed by A. H. Young, manager of the industrial relations department of the International Harvester Company, in a recent address before the School for Safety Engineers conducted at St. Louis by the local Chamber of Commerce and the National Safety Council.

Mr. Young said in part:

One of the most important considerations of industrial management is the induction of the new employee into the plant. In all industries the new men—"green" men—are most frequently injured. In a large steel plant the accident records show that men employed less than thirty days were injured six times as frequently as those employed longer, and that those employed less than six months were injured four times as frequently as the remainder. These accidents are due not so much to carelessness or foolhardiness as to ignorance of the hazards and the proper way to do the work and hesitancy in asking for instruction. The greater the labor turnover the more important it is that the new employee receive the proper introduction to his work. Each new employee is a potential hazard, and as you multiply them you multiply the hazards and the possibilities of accidental injuries.

The cost of replacing experienced men with green men—estimated at from $10 to $200 per worker—has made employers more careful about hiring. Time and money spent in getting new employees properly placed in the plant will reduce the labor turnover and assist in solving your labor problem. The following suggestions, adapted to suit local conditions, may be carried out in almost every plant or industry:

Physical Examination

Let us take an applicant through the procedure of employment and stay with him until he is at work. The applicant has been interviewed by the employment supervisor, who has satisfied himself, as far as practicable, that the employee is physically, mentally and morally competent to fill the vacancy—which, let us say, requires a production mechanic. Before being employed, however, he must undergo a physical examination to make sure that he has no contagious disease or hidden physical defect which would make him dangerous to himself or to his future fellow workers. The doctor fills out a record card, which will be kept in the medical department, showing the date of examination, the employee's name, address, age, and the department in which he is to be employed, together with such other information as may be desired. The doctor then examines teeth and finds that they are in good condition, although two cavities are found, which he notes on his report form. The heart is then listened

to and found to be O. K. Following this, an examination is made of the chest, the groin and the muscles of the back. Nothing is found wrong. The legs and feet are next examined and the prospective employee is found to be flat-footed. This fact is entered on the card. The vision is tested and found to be normal when corrected with glasses. A sample of the urine is taken and a quick examination shows that no disease is indicated. Having completed the examination, and knowing the work that the applicant is to do, the doctor gives his approval, with the condition that the man's teeth be repaired and that he report again four weeks later so that the teeth may be examined.

Applicants Below Standard

If the physical examination shows other defects which can be cleared up while the applicant is at work, he is told what should be done and, if necessary, he is assisted in securing medical or surgical attention. If his condition is such that he would be a menace—because of disease or physical defect—to his fellow workers, he is told what to do and, if he desires, is assisted in getting proper medical attention, but is not employed until the condition is cleared up. An applicant who is physically incapable of doing the work of the job is told of his defects or is returned to the employment department. If any job is open which he can fill without injury to himself or fellow employees, he is offered the job with the understanding that there must be no change of work without the doctor's approval. For example, a man with a hernia will not be employed at work where he must lift heavy weights, but may perhaps be put at lighter work, the precise nature of the work being specified by the doctor. In every case the applicant should be made to feel that the physical examination is a friendly action, for his benefit as well as for the benefit of the company. The examination is made not to secure perfect specimens of manhood but to secure men who are physically able to do the required work without injury to themselves or to fellow employees (through disease or accident), and for no other reason.

Instruction in Safety

The prospective employee is then taken to the safety department, where a safety inspector tells him about the safety work of the company, the name of his new foreman, and something about the shop in which he will work. Following this the inspector inquires about his safety experience, being careful to learn anything which might be used as a direct lesson in safety in his new job. The new employee is told that the company will furnish him with a pair of goggles, is told about the company's rules governing the removal of safeguards, and is warned against using mushroomed tools. The proper clothing to be worn while at work is then discussed, and the new man is warned about loose sleeves, ties, key chains and watch chains, finger rings, and shoes, each particular hazard being definitely referred to with reference to specific accidents which have occurred.

"Selling" the Rule Book

If rule books are provided a copy is given to the new men, not with the statement "Here are the company rules, which you must obey" but with the explanation that the rules were drawn up by the older, experienced men for the help of new men and that they are necessary for his safety and welfare while at work.

The new employee must be impressed in a friendly way with the sincerity of the company, the seriousness of the safety work, and his part in it. If it is practicable to do so, photographs or National Safety Council bulletins should be shown illustrating accidents which have occurred to men doing the work which the new man is to do. This is the one time when the safety department can make its greatest impression upon the employee.

The Foreman's Part

Following this, the new employee is sent with a special messenger to the department in which he will work and is introduced to his foreman, to whom the statement is made that the new man has been told of the dangers of his work and that the foreman must now see that these suggestions are carried out. The foreman or one of his assistants should show the new employee where he is to work and how to operate the machine, help him secure his stock of tools from the toolroom, including a pair of goggles, show him the location of the washroom and toilet-room, and either promise to do so personally or assign another workman (not a grouch) as the instructor or mentor of the new employee. The latter is necessary so that the new man will have someone who will not only show him about the plant as may be necessary, and the safe ways to get to the gate, but also introduce him to the other workmen and in general vouch for him, and so that his "instructor" may watch for unsafe practices and correct them in a friendly way.

Follow Up

The proper introduction of the new employee into the plant is very important for employer and employee alike. If he (the latter) is carefully instructed and made to feel that he "belongs" on the first day, the hazard of the "new employee" will be appreciably reduced. In a like manner the labor turnover will be affected. In some plants a "safety inspector" (or, sometimes, a "plant preacher") interviews the men three or four days after employment, with the consent of the foreman, and tells them about the safety work of the company and other matters concerning their relations, making sure that the new men thoroughly understand the things which they must know if they are to continue at work happily.

Continuity of Employment

The employer's problem of reducing labor turnover, aside from that which results from seasonal businesses and from material shortages, is one of management. Beginning with the foreman, the new employee must be made to feel that the management is just and that a reasonable wage is being paid, which is not less than the average for that kind of work in the vicinity. Working conditions should be carefully looked into by the employer—and this is where the safety department should play an important part. Working conditions mean those conditions which affect the safety, health and comfort of the worker; the mechanical guarding

of machinery and equipment, the dangerous practices carried on by employees, shop sanitation, lighting, lunchroom facilities, etc. All of these affect continuity of employment; and then, going beyond the working place, housing conditions in the community also have their effect.

Housing

If employees cannot secure respectable and sanitary living quarters they will not stay (or will fall into illness, possibly resulting in a serious accident), and if it is necessary to travel great distances to and from work they will leave when work nearer home is available. Family men will require good schools and recreation for their children. Single men require churches and entertainment and, in many cases, educational facilities.

Where the plant employees live close to the plant the employer must take the lead in community work, else discontent will arise and labor troubles appear. In communities in which several plants are located the progressive employer will take the initiative in securing housing and community improvement measures for his employees.

Visiting Nurses

Many plants employ visiting nurses to assist tactfully the families of employees, both in sickness and in health. Unpleasant home conditions affect the worker, lessening production and increasing the liability to accident. The visiting nurse can also bring safety lessons into the home and, often, assist the safety department in securing the co-operation of good workers who do not thoroughly appreciate accident-prevention work. Her success depends on her tact and good sense.

Continuity of employment requires good treatment, fair wages, safe working conditions, good housing and comfortable home life. All of these are necessary for uninterrupted production at minimum unit cost.

2,560,000 Cu. Ft. of Gas Used to Heat the Rivets for an 8,800-Ton Ship

E. W. Florence Describes Gas Installations at San Francisco Shipbuilding Plant—Premixed Gas and Air Piped Out to Rivet Heating Furnaces in Ships

The Schaw-Batcher Company, of San Francisco, Cal., pipe makers, turned shipbuilders, use modern methods in their new work. Rivets are heated by gas, copper brazing is done by gas, and the administration building is heated by gas. E. W. Florence, manager of the Pacific Gas & Electric Company, describes the installation in *Pacific Service Magazine* as follows:

In order to insure an adequate supply of gas a 4-in. high-pressure pipe line was extended from the 8-in. high-pressure main located on the State highway to the shipbuilding plant, a distance of 16,500 ft. This 8-in. main extends from the Potrero gas works of the company in San Francisco to Redwood City, a distance of twenty-eight miles, and supplies gas to all the intervening territory. A 4-in. line extends from Redwood City to Palo Alto and Stanford University, and this line also supplied large quantities of gas to Camp Fremont during the period of its existence.

3,400-Cu.-Ft.-per-Hour Meters

At the terminus of the 4-in. line extended to the shipbuilding plant the pressure is reduced from approximately 50 lb. to the square inch to 6-in. water pressure. Five No. 00 Equitable regulators are employed for this purpose. Each regulator delivers gas through two meters, each having a capacity of 3,400 cu. ft. per hour. The ten meters installed have their outlets neatly connected to a 10-in. welded header pipe. This header pipe is connected in turn to one 6-in. and one 8-in. pipe conveying the gas to two Selas systems, one having a capacity of 8,800 cu. ft. per hour and the other 25,000 cu. ft. per hour.

In burning gas, as with other fuels, a certain proportion of air must be used in order to support combustion. This air may be supplied at the point of flame, or, in the case of gas fuel, can be mixed prior to combustion. To obtain the localized extreme temperature desired in many applications the latter course is desirable. The superefficiency, then, of a gas flame depends to a great extent upon this mixing process.

In large installations the saving in fuel that can be effected by totally eliminating the human element in obtaining this mixture and substituting mechanical means oftentimes justifies a large expenditure in securing apparatus designed for the accurate premixing operation. Such was the case at this plant.

Possibilities of Increasing Gas Efficiency Numerous

Here the Selas apparatus is used. The machine consists of four essential parts: A pressure-reducing valve which reduces to atmospheric pressure the gas, which is bound to be supplied with some variation in pressure from the gas company's mains; a mixing chamber in which the gas and air of atmospheric pressures are admitted in the proper proportion, usually one part of gas to two parts of air; a compressor by means of which the mixture is delivered under the desired pressure through the distributing pipes to the various burners; a pressure governor which controls the delivery pressure, at the same time acting as a bypass for any quantity of air and gas that may be mixed by the machine over and above the amount desired at any period.

It can be seen that the possibilities of increasing efficiencies of operation by the use of such apparatus are numerous. This machine, automatically and thoroughly mixing the air and gas and delivering the mixture under constant pressure to the burners, insures the very highest even flame temperatures, and the result is not only a saving in the consumption of gas but the results secured in the finished producers are such as can be obtained with no other fuel.

Gas Conveyed to Slips

From the outlets of the Selas systems the gas is conveyed to the several slips where it is burned in suitable furnaces for rivet heating. About 650,000 rivets are used in each 8,800-ton ship, and approximately 2,560,000 cu. ft. of gas is required for heating these rivets. No fuel other than gas has proved wholly satisfactory for rivet heating, a uniform temperature being essential, and, because of its flexibility and easy control, gas meets every requirement. In the copper shop furnaces of special design are employed for brazing the copper plates and tubing. For this work gas has proved the only satisfactory fuel. For heating the administration buildings ventilated gas radiators are employed to advantage, their use permitting of an efficient and even distribution of heat. Where the floor space is at a premium the radiators are placed on brackets secured to the wall about 6 ft. from the floor. In this plant gas fuel has beyond question contributed very largely to the high efficiency that has been attained.

Demand for Appliances at Atlanta Keeps Market Clean

Second-Hand Gas Appliances Not Allowed to Stand Idle—Customers Waiting to Use Them

So great is the demand for gas appliances at Atlanta, Ga., that the gas sales department of the Atlanta Gas Light Company has been conducting a systematic hunt for idle ones; and such is the success of this work that Atlanta is practically without serviceable gas appliances that are not at work. Good prices are paid for second-hand appliances by customers only too glad to get them.

I. H. Morehead, Jr., gas sales manager, cites a recent instance as typical. The war department installed, months ago, in the mess kitchen at Georgia Tech. of the 500 members of the Students' Training Corps gathered there from various camps, an elaborate gas equipment of hotel appliances. Recently, the training corps having been disbanded, the department offered this equipment for sale through Mr. Morehead.

"Seven purchasers were hot after it at once," says he. "And the whole outfit was bought in one lot by the general mess officer at Fort McPherson—not with any Government appropriation, but with money from the mess fund out there; the mess' own money, in other words. And every bit of that equipment has been put back to work."

A little portable oven, second-hand, was snapped up by the Vannie Tilden bakery on Peachtree Street, says Mr. Morehead, and added to that bakery's other gas baking equipment. Not a second-hand candy furnace remains in town.

THE BIRMINGHAM (ALA.) GAS & ELECTRIC SUPPLY COMPANY, gas and electric supplies. Authorized capital $8,000. Paid in $2,200. Incorporators H. M. Watson, H. B. Strong and C. C. Lamar.

Gas Sales Association of New England Held Regular Monthly Meeting Feb. 14

Reports Submitted by Gas Ranges, Gas Lighting and Water Heater Committees—Gas Ranges Should Be Used Throughout the Year—Gas Lighting Situation—Water Heater Committee Compares That Branch of Business with Picture of a Western Panorama

The regular meeting of the Gas Sales Association of New England was held at the Boston City Club on Friday evening, Feb. 14, 1919, with William Gould presiding.

The sales committees appointed by the governor at the previous meeting submitted their reports.

M. E. Abbott and Charles L. Young, appointed on the gas-range committee, reported as follows:

Your committee would like to carry a little further the subject that was discussed at our last association meeting, when it was shown by figures and facts that there was a strong tendency for gas company men to overlook the almost universal habit of their customers to stop using their gas ranges in the winter and in their place using the coal range.

The satisfactory use of any article purchased by our customer depends entirely upon the amount of instruction we give him.

We believe that every gas range sold should and could be used twelve months of the year, and that, because we have not given the proper convincing facts to the customer, in many cases they are only being used five months out of the twelve.

CONSUMERS CONVINCED OF SUPERIORITY OF GAS RANGE USE THEM THROUGHOUT YEAR

The people who are now using the gas range twelve months are convinced of its superiority, which

Gas Range Sales of Public Service Company of Northern Illinois Reach Unexpected Mark

Sales of gas appliances notwithstanding the generally great advance in their costs reached a total in 1918 somewhat greater than was expected in view of the condition mentioned, is reported by the Public Service Company of northern Illinois. This was true especially of ranges, which of all gas consuming devices have perhaps risen most in prices. It is noteworthy that the sales made were largest of those stoves whose manufacturers continued their advertising in 1918 in publications of national circulation.

As to the automatic and the tank types of water heaters, sales of the latter with respect to number exceeded the sales of automatic heaters by about one-third. The field for water heating appliances is one of the largest in the undeveloped territory of the company. There are literally thousands of houses in that territory possessing none but the reverse of modern means of heating water.

A large number of hot plates were sold and went into service in the mains of the company. The new installations included gas-steam radiators for heating and a considerable number of gas lights, together with many space heaters. One of the two seasons in the year when the latter are given most use is approaching. The contract department plans to push the appliances hard in that period.

is absolute proof that it could be extended to those customers who are not using it throughout the year. The logic that the gas range is good for the summer months makes it reasonable to think that it is just as good for the winter months.

Of course, there are a great many conditions existing in which we cannot consistently expect to install a full gas equipment in the kitchen. However, there are on the market practical appliances burning other fuel that can be made to work in conjunction with the gas appliances so that a gas-cooking consumption for twelve months in the year can be accomplished.

We suggest to the gas companies to realize that it is good business to get as much of your customers' trade as possible, and that it is poor business to refuse to take a part of it of those who find it necessary to use a combination fuel heating and cooking appliance.

Worn-Out Equipment Poor Advertising and Should Be Replaced

During the past two years of war, replacements of worn-out equipment have been far below the average, consequently at the present time there are many opportunities to put in up-to-date gas equipment. What are you doing in taking care of these replacements? Something certainly should be done, because worn-out equipment is poor advertising for us and should be replaced as soon as possible.

We are not proud enough of our product and do not often think of the wonderful things it will do and is doing every day, facts that people are not acquainted with. We should tell a customer all the good things we know about gas, and tell them to him often. The simplest things that we know about our business are great mysteries to a majority of our consumers, and we should never be afraid of telling them because of their simplicity to us.

We think that an attractive showroom is a great help to display gas ranges. This is one of the links of the chain, together with your advertisements and sales efforts, which include solicitation and demonstration.

The show windows are considered the most important and valuable space in big merchandising concerns, and it shall be our effort to encourage gas companies to conduct these window displays along the lines of some of our larger merchants.

Display Ideas Can Be Obtained By Keeping Your Eyes Open

What attracts you individually in a show window also attracts other people. Use these attractive ideas in your own windows. Many ideas in window dressing can be obtained by walking around your own town for ten minutes and keeping your eyes open.

We feel that newspaper advertisements keep the public in touch with your latest efforts, and would recommend that too much printed matter should not be crowded into the space utilized.

We also feel that keeping accurate, up-to-date information regarding customers' installations is a great help; also, the regular maintenance of these appliances is most necessary.

We also feel that systematic maintenance of appliances should have a regular part in the organization of the gas company.

Women use gas ranges. Are we gas men making our sales talks and displays in a way that will attract them? Good merchandising of appliances not only means a profit to the appliance department but is necessary for the increase in the sale of gas.

Gas-Lighting Committee

William H. West and L. W. Geffine reported on the gas-lighting situation as follows:

At the last meeting of this association it was conclusively proven that companies which neglected gas lighting showed a decided dropping off in the output of the winter months. On the other hand, gas companies which had given some attention to gas lighting had a more consistent winter output curve. Therefore, does it not seem worth while, in view of these facts, to give more persistent attention to that part of the gas industry on which it was founded, namely, gas lighting?

We are all striving to bring before the gas industry the necessity of keeping our output up for the twelve months of the year; and as gas lighting is one of the branches of our industry which, when properly installed, will give twelve months' consumption, does it not seem, therefore, worth while to have a systematic maintenance of it? There is a woeful lack in the gas company of proper knowledge in the installation of gas lights in both commercial and house-lighting units.

Gas-light manufacturers have always showed their willingness to co-operate with the gas companies in this matter, and are ready to-day to help with general educational talks on equipment, installation and maintenance.

Your committee is of the firm belief that the success of securing and holding gas lighting is to be found in a well-defined policy and adhering strictly to it for twelve months in the year.

Spasmodic efforts at various times during the so-called lighting season are but a flash in the pan, and the good work accomplished during a special drive or campaign is soon forgotten unless it is vigorously followed up.

House-Burner Maintenance Tried with Success by Several New England Companies

House-burner maintenance has been tried with success by several of the companies here in New England. This is certainly a step in the right direction, and will go a long way toward any effort to bring your output out of the so-called valley which your curve shows during the winter months.

The commercial lighting should be a big factor in your business, for when this is taken on a plan whereby the company has absolute control of the installation and maintenance—and by the latter is meant a systematized periodic inspection—it has proven a difficult matter for the electric interests to rob you of a consumer.

Has it ever occurred to you that a gas arc lamp properly maintained and used is equal to the average gas range in point of gas consumed?

It also might be of interest to quote the following figures regarding the yearly consumption of an average household gas-light installation:

(*Continued on page* 239.)

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SIXTIETH YEAR

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As the Journal Views It

Missed It Again

We've been caught napping.

After all our sententious preachments, and the indorsements thereon we had received, we had gotten to imagining that everything was as it should be in the gas field; that the incompetent had become competent overnight; that in the commercial branch every executive had become an infallible opportunist, and so on.

We've been rudely awakened.

The passing winter has not been severe. The opportunity to sell gas heaters for auxiliary heating has been slim indeed.

There was no need of auxiliaries. The central heating plant has *more* than sufficed.

We have emphasized the word *more,* the reason being that therein is the opportunity an alert commercial manager would have assuredly grasped.

As we look back at the passing winter we can remember but few brief periods in which a few gas heaters, normally merely auxiliaries, would not have adequately, and with decided economy to the consumer, supplied principal heat.

When we think of those furnace fires, never completely out, unnecessarily burning up costly coal through all the long days, it seems well-nigh criminal waste.

We are convinced that personally had we in the

fall invested fifty dollars more in gas heaters we would have had our investment completely returned in coal still in our bins, even deducting cost of gas consumed to accomplish the saving. Multiply half that figure a million times and it is easy to comprehend that the passing winter should have represented an opportunity for the sale of gas heaters scarcely excelled even by the previous abnormally cold winter.

Yet we learn gas-company storages are filled to overflowing with unsold heaters. Heater manufacturers complain that the laxity of demand has taxed their resources to the limit; that their working capital is almost completely tied up in unsold stock.

What is the value of the gift of *Vision!*

Watch Each Step

In the flush of easy success even the well-balanced are apt to become reckless in their undertakings. The average run of salesmen and solicitors employed by gas companies cannot always be numbered among the well-balanced.

A campaign gets under way. Results begin to come in thick and fast. The lightly-balanced thinking apparatus begins to reel. A small obstacle, a notion that has to be banished, intervenes in many sales. It is nothing. A few words of explanation will brush aside the obstacle. But it is a trifle. Why waste those few words? The consequence is a reckless reassurance.

The days of easy, intoxicating success are ahead. Watch each step carefully. Know what your salesmen are promising prospects. These fellows can often bring down on the head of a really meritorious gas company more abuse than can a downright policy of big crookedness on the part of the management.

One of our best companies lately has come in for considerable misrepresentation because a consumer asserts a salesman assured him a mantle-lamp pilot would consume only five cents' worth of gas in a year.

Thus the loose, reckless talk of an addlepate out of restraint has provided the inspiration for an attack by the hostile press on a company whose good works in trying times entitle it to far different treatment.

Who can guarantee just how much gas the pilot will consume?

In the early days of the Welsbach lamp, back in the natural-gas belt, they used to tell us to keep them burning. It was cheaper than matches and tapers. This fool doctrine found spokesmen in the manufactured-gas field. Latterly there has been a marked effort to dispel the delusion.

Keeping the pilot alight is a convenience, not an economy. It is a convenience for which payment must be made. Even with this convenience, a convenience of real utility in the house after bedtime, gas lighting is pre-eminently the economical lighting. As such it can be sold.

Watch your salesman. In some cases he does not cost enough in direct outlay to seem to make close supervision practical. But absurd undertakings on his part may cost you eventually more than a dozen blunders or neglects of an important department head.

You and Your Employee

A basic cause for the differences between capital and labor is that the latter cherishes some rather fantastic notions as to what the former is getting out of the deal in comparison to what he is getting.

Now, it is revealing no state secret to say that capital as represented in gas-company investments in these somewhat harassing times is not by any means wallowing, nor has been, in excessive profits. The market value of gas-company securities is an indication of this.

If the gas-company worker got down to brass tacks he would doubtless discover that he is getting more out of the deal than is the capitalist.

But the worker's judgment in such matters is not founded on facts, but rather on fancies. And the manual worker's imagination travels far and his credulity is vast.

He doesn't, as a rule, keep track of market values of securities at all, and, if he did, wouldn't be able to interpret them.

To the mind of the AMERICAN GAS ENGINEERING JOURNAL little harm could be done, and much good might result, if gas companies made it a rule to inform their workers, in understandable terms, from time to time just how the company is faring financially.

It is certain the worker's notions regarding the big hog's usurping the whole puddle would be rudely shattered. Being an open-hearted, impressionable being, it is possible that he might even be stirred to sympathy.

Half his dissatisfaction regarding his wage is not inspired so much by its inadequacy to meet his costs of existence as they are by his resentment over the figment of his fancy that the other fellow is monopolizing a disproportionate share of the proceeds.

Wisconsin Company Denied Increase

The Wisconsin Railroad Commission recently denied the application of the Wisconsin Traction, Light, Heat & Power Company to increase its rates for gas at Appleton, Neenah and Menasha. The company had been granted an increase in April, 1918, effective until April 1, 1919. The company on Jan. 8, 1919, asked a further increase.

The commission's decision allows the present rates to continue at 90 cents per 1,000 cu. ft.

Gas Sales Association of New England Held Regular Monthly Meeting Feb. 14

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	Cu. Ft. per Year
Living room	7,000
Bathroom	1,600
Hall light	1,600
Kitchen	2,000
Total (yearly consumption)	12,200

A fair estimate of the time during the year that a gas range is used is five months, and at a conservative estimate of 2,000 cu. ft. monthly this shows conclusively that the gas-lighting installation is over 2,000 cu. ft. more per year than we are at present getting out of an average gas range.

Commercial lighting in most cities can be secured with little or no investment, for rarely ever does it mean a main extension or service, and this should be the most desirable business. We believe that every gas company can build up an output on its present mains which will have a wonderful effect on leveling off that curve of peaks and valleys, and gas lighting is the thing that will do it.

The gas-light manufacturers stand ready to-day to co-operate with the gas companies in any way that will hold or increase their gas-lighting business, and they believe that every gas company in New England to-day can be benefited if they will co-operate with us to the extent of an increased winter sales of gas.

Report from Water-Heater Committee

The water-heater committee, consisting of W. T. Pease and Fred K. Wells, presented the following paper:

Picture a Western panorama. Before your eyes stretches a range of mountain peaks, glorious in the reflected colors of the first rays of the rising sun. Now look down. At the foot of every one of those many-hued heights lies a dark, dismal, mist-filled valley.

Such a picture should be hung in the office of every gas company commercial manager. Why? Because it is a vivid conception of the average gas company's monthly output chart. Let us trace the analogy. The brilliant rays of the summer sun shine hot on the high curve of capacity output, the waning rays of autumn glance weakly off the steep downslope of reducing output, and the dim light of winter fails to touch the sagging line of low production. Briefly, we find summer peaks and winter valleys.

Why should we bother about these wavy lines if our average monthly output is good? The answer is—"Overhead." We must build a plant big enough to carry the highest peak load safely. It costs money to build that plant; it costs money—lots of it—to operate it; and, sad but true, it costs practically as much to operate it in the winter months, when the output is low, as it does in the summer, when everyone has to hustle to produce enough gas to supply the demand. We find that 1,000 cu. ft. of gas costs around 15 per cent more in the winter than it does in the summer, because of the constant overhead and the diminished production. Constant peak production would mean constant minimum cost of gas, and that is the goal.

Our problem is to build up the winter valleys to a level with the summer peaks. How can we do it? Not by extending our mains and securing more business of the present sort, for then we should be piling peak on peak and valley on valley, and while we might build our valleys to the present level of our peaks we should find new peaks so high that expensive extension of our plant would be necessary to care for them. That policy would mean more expense for mains and more expense for plant facilities.

We must find a new kind of business for our present mains, a business that is constant winter and summer, or, better, greater in winter than it is in summer. Then, by combining it with our present load, we can cause our output curve to approach more nearly to a constant line.

Classes of Consumers

Our present consumers may be roughly divided into these three classes:

1. Industrial.—We find that industrial output is practically constant winter and summer, and ideal for that reason.

2. Heating.—This class of business, though perhaps small, is a winter load that is at present helping to balance our slump in the third class, which is—

3. Domestic.—The industrial and heating load is satisfactory to us in its present form, barring that we must try to increase it. The curve of consumption, however, is consistently good.

The domestic or household load presents a very disheartening picture. We find that with the first cold weather in the fall the curve for this class sags heavily, almost to the zero point. If we can alter this curve by increasing our output without extending our mains we shall be a long way toward our constant twelve months' production goal.

Sagging Occurs When Cold Weather Approaches

We find that the serious sagging occurs about that time when the approaching cold weather causes need for artificial heat for the home. With this clue, it is easy to picture the average household equipment and living conditions and follow the reason for the falling output.

The gas-burning equipment in the average home consists of a gas-tank heater connected to a boiler which originally was and still is heated by a water front in a coal range. A gas range vies with the coal range for first place in the cook's heart. (We are leaving lighting out of the question, since it is obviously more used in winter than in summer, and therefore very acceptable.)

Now, become for the time a member of the household and make yourself thoroughly at home. When winter's first cold shivers ramble up and down your spine you want a bit of a fire. Being thrifty, you hesitate to start the house heater for a chilly evening, so you build a fire in the kitchen range instead. And because tomorrow may be chilly you keep the fire overnight. Now, we can save gas by doing all the low-heat cooking on the coal stove. We may even push the fire hard and do our roasting and baking by coal. This seems perfectly logical to us, for the fire is going to warm the lower floor of the house and why shouldn't we use it for cooking? The cost is not

realized, for there is no meter on the coal hod.

This has seriously cut our very nice gas-range income. The old coal stove gives us a bad wallop.

While the coal stove is running to heat the house, and incidentally to do the cooking for us, it is flanking us in another direction. The water front is on the job warming the water in the boiler. I didn't say "heating." The water may be hot at times and only lukewarm at others, but I go to the lavatory or kitchen sink in perfect confidence that I will get hot water; and confidence is a long step toward persuasion. In truth, the hot-water service is very satisfactory. The water is always ready, which is better than waiting five to thirty minutes for enough water heated by gas with a tank heater. Consequently, friend tank heater gets a vacation and the spinning gas-meter hands slow down.

We lose our gas consumption because the coal stove combines three functions in one appliance and gives better service during cold weather than the gas-burning equipment already installed. The three service functions are heating, cooking, and water heating.

Seven Months' Loss of Domestic Load to Coal Stove

How easy it is to turn from gas to coal!

Having revived our old-fashioned coal habit, we shake it only when the approaching hot waves make the kitchen unbearable if the coal stove is lighted. This means a seven months' loss of a great part of our domestic load.

Since it is plain that the coal stove is causing our peaks and valleys, how can we eliminate the coal stove?

Not by installing only gas ranges. Gas ranges are already like poor relations—everybody has 'em. And the peak and valley conditions are still existent. Gas ranges play an important part in gas consumption; the point I wish to emphasize is that they alone have not remedied and will not remedy the hill and vale output curve.

Not by installing only tank heaters. Without gas ranges, the coal stoves are going all the time for cooking; and they heat the boilers reasonably well, so that the tank heater dwindles in importance to a mere emergency auxiliary, seldom if ever used.

Not even by installing gas ranges and tank heaters together. The fallacious logic of the non-technical mind cheerfully twists the facts beyond the hope of untangling. The truth is that the installation of a gas range and tank heater will not eliminate the coal stove. Why? Because the tank heater requires a boiler. The boiler is already installed and connected to a water front in a coal range. The water front has always given passable service. The tank heater is wanted only for those summer months when the coal fire is out. The tank heater is admittedly an auxiliary. The tank heater requires time to supply enough water for a bath or even for dishes. The water front, when the coal fire is in use, supplies instantaneous water service. So the coal range stays. It gives the better service seven months of the twelve. At the same time our gas-range revenue suffers because of the presence of the coal range during cold weather. What, then, is the solution?

Instantaneous Automatic Water Heater

Install the instantaneous automatic water heater. It is easy to sell. It offers its purchaser every-ready, luxurious hot-water service every minute of the year. It offers real service; no ashes to lug, no coal to fetch, no drafts to adjust, no danger. It is the most efficient way of heating water, and so appeals to the customer's pocketbook and his sense of luxury at the same moment. But how will it help us to gain the end of removing the coal stove?

The instantaneous automatic water heater requires no boiler; before a proper installation can be made the boiler must be removed. This deprives the coal stove of one of its chief functions—water heating. No longer can coal encroach on the use of gas for domestic water supply. The incentive to retain the coal stove is now much reduced, for the gas range is admittedly, even to the average householder, better for cooking. Function number one of the coal-burning service fades into insignificance.

It is now easy to remove the coal range, install a gas room heater or a gas radiator if it is needed, and complete the all-gas kitchen. Q. E. D.

Granting, then, that the instantaneous automatic gas water heater is the big factor in securing twelve months' consumption, not only for itself but for the gas range also, thereby building up our winter output curve, does it not seem that we should put forth greater effort in selling this appliance?

Is the instantaneous automatic gas water heater of universal applicability? No, of course not. There is no such thing as a cure-all. But it is safe to say that 90 per cent of the homes in the average town or city can be properly and satisfactorily equipped with some size of this type heater. The following table gives some of the more common recommendations:

No. 2½—For the kitchenette.
No. 3—One bathroom and kitchen sink, for small family.
No. 4—One family bathroom, one servants' bathroom, kitchen and laundry.
No. 6—Two family bathrooms, one servants' bathroom, kitchen, pantry, laundry, and one or two extra lavatories.
No. 8—Three or four family bathrooms, servants' bathroom, kitchen, pantry, laundry, and several extra lavatories.

For those few cases where unusual circumstances make the installation of the instantaneous automatic gas water heater inadvisable the automatic gas-storage system makes a good substitute.

What revenue may we expect from the instantaneous automatic gas water heater? Statistics show that the average yearly consumption of the No. 4 size installed for a family of four persons is 48,000 cu. ft. Suppose we install one thousand of the No. 4 size in your city. There is a sure output of 48,000,000 cu. ft. Isn't that pretty good? The best part of it is that the monthly demand is uniform the year 'round.

What is the relative cost of each type of installation?

For the all-gas kitchen the cost is as follows:

No. 4 instantaneous automatic water heater	$200.00
Gas range	40.00
Gas radiator or room heater	55.00
Total investment	$295.00

For the combination coal and gas burning kitchen:

Combination coal and gas range with water front—copper boiler; tank heater	$300.00

In other words, the cost of the twelve months' gas-burning kitchen

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New Coal Kitchen at Fort McPherson to Be Replaced by Gas

Two months ago the kitchen of the nurses' dormitory of the general hospital at Fort McPherson was equipped throughout with fine new coal ranges.

Now those same ranges, with the newness hardly worn off, are to be replaced by three large hotel gas ranges. And the entire kitchen is to be modernized otherwise throughout with gas equipment.

"Gas service is making such a fine reputation at Fort McPherson that we have reached the point now where it sells itself. They all want it," says I. H. Morehead, Jr., gas sales manager of the Atlanta(Ga.) Gas Light Company.

Engineer Retained to Prepare Plans for Municipal Plant in Porterville

J. H. Berkeley, a consulting engineer of southern California, has been retained by the City Council to prepare plans for a municipal gas plant in Porterville, Cal. This action of the council was the answer of the city officials to the recent decision of the Railroad Commission in allowing the Central Counties Gas Company a material increase in rates. The council also has under consideration a municipal power plant, the Mount Whitney Power & Electric Company having applied for another increase in rates.

Gas Secured for Baldwin Park, Cal., After Seven Years' Fight

After seven years' fight the Baldwin Park Chamber of Commerce wins out in its efforts to get gas. A representative of the Southern Counties Gas Company was in Baldwin Park, Cal., recently and made a canvass of the territory and secured enough customers to guarantee the extension of the gas mains from Covina to Baldwin Park, which he said would be done and all completed by not later than next July.

Heavy Tax Paid by St. Paul Company

The St. Paul Gas Light Company recently paid the city treasurer $133,661.46, as tax on its gross earnings for 1918. This is the largest amount ever paid by the company. The sum last year was $126,854.34.

Ban on Natural Gas as Factory Fuel Removed

Industrial plants in Indiana now have the right to use natural gas for the first time since Dec. 12, according to a message received by the Central Indiana Gas Company here from L. B. Gregory, director of the natural gas bureau, oil division, the United States Fuel Administration. The order was made effective beginning Feb. 28.

The ruling resulted from a conference held in Pittsburgh on Feb. 17, when it was represented that a continuation of the fuel ban was unnecessary to protect the interests of domestic consumers.

As suggested by the city officials, Mr. Gregory's order provides that if the gas pressure from the West Virginia fields falls below twenty-five pounds, the industries must be cut off until this pressure has again been built up and maintained for at least forty-eight hours.

Complete Work of Changing Meter Gears to Correspond with New Rates

With only about 200 gas meters in Atlanta, Ga., still to be worked on, O. B. Busbee, chief of the prepay meter department of the Atlanta Gas Light Company believes his men virtually have finished their long job of re-gearing slot meters to apply the new rate of $1.15 per 1,000 ft. Some 13,000 meters have been fitted with the new price-wheels. The work was started October 1, right after the Georgia railroad commission increased the gas rate from $1 to $1.15.

Natural Gas Turned into Mains of Hamilton Utilities

The Hamilton City Gas Works, Mar. 3, after making connection and setting up four meters in the High Street gas plant, turned natural gas into the mains of the Hamilton (Ohio) Utilities Company at a price of 28 cents per 1,000 cu. ft. The Hamilton Utilities Company formerly derived its artificial gas supply from the Otto Coke Company plant, which was closed Mar. 3 by order of the District Court in Cincinnati.

St. Louis Foreign Trade Bureau Proposes $25,000,000 Corporation

Petroleum, Natural and Artificial Gas in Foreign Countries Given Important Place

Development of the petroleum, natural gas and artificial gas industries in foreign countries is given important place in the plans for a $25,000,000 foreign trade corporation proposed by the Foreign Trade Bureau of the St. Louis Chamber of Commerce and approved by the Board of Directors of the Chamber. It is proposed that the corporation be formed with private capital and consummation of the project is now under way.

The provisional application for a Federal charter for the company, to be known as the St. Louis Trading and Navigation Company, includes the following under the purposes of the proposed company:

"To build, construct, repair, maintain and operate water, gas or electric works;

"To obtain concessions from Federal or State Governments or from municipalities or to contract with same for the installation of

. . . gas and electric lighting . . . or any other work of public utility;

"To promote and engage in all countries in the development of the iron, steel, coal and petroleum industries and to obtain concessions and contracts for the exploitation thereof."

The plan provides for the admission of foreign capital to the extent of 40 per cent of the capitalization of the company.

Contra Costa Company Given Permission to Increase Rates

The Contra Costa Gas Company has been granted authority by the Railroad Commission slightly to increase its rates. The company asked that the increase be granted in the shape of a surcharge, but the commission holds that the testimony brought out at the heaaring of the rate application warrants a change in the company's rate structure itself in order that the utility may earn a fair return on its investment.

The application was occasioned by an increase in the cost of oil from $1.55 a barrel to $1.70, higher wages and additional taxes, all occurring since March of last year, when the present rates were fixed by the Railroad Commission.

St. Louis Engineer Claims Laclede Company Is Seeking Increase in Gas Rates to Offset Loss in Electricity

The petition of the Laclede Gas Light Company of St. Louis for an increase of 15 cents per 1,000 ft. on all classes of its gas service was strongly contested by the city of St. Louis at the final hearing of the city's arguments before the Missouri Public Service Commission at Jefferson City, Mo., on Mar. 7.

C. E. Smith, consulting engineer for the city, declared before the commission that the company is seeking increased rates for gas in order to counteract a loss sustained through the sale of electricity. He said that exhibits placed before the commission by the gas company indicated that it costs the Laclede company three times as much to produce electricity as the United Railways Company pays for its electrical current from other sources. Mr. Smith, however, did not mention the fact that the United Railways is by far the greatest consumer of electrical power in Missouri.

Mr. Smith charged that the gas company in order to meet competitive rates of the Union Electric Light & Power Company of St. Louis, sells electricity to certain classes of consumers at less than cost.

The gas company was represented at the hearing by G. B. Evans, general manager, W. H. Whitton, secretary, and J. F. Bulfin, auditor. Mr. Evans again pointed out to the commission that the requested increase in rates was imperative because of the increased cost of materials, fuel and labor during the war.

Vicksburg Company Asks City Commission to Authorize Rate Increase

The Vicksburg (Miss.) Gas Company, having asked the mayor and city commission to authorize a temporary increase of 25 per cent in its present rates, alleging loss on account of advanced prices for labor and raw material, the commission has requested the Board of Trade and Young Men's Business Club to appoint committees to confer with the commission in determining whether or not the request should be granted. The present rate is $1.50 per 1,000 cu. ft.

Canton Company Denied Increase

The public utilities commission recently ruled that rates for gas of the Canton (Ill.) Gas & Electric Company, made effective Mar. 1, 1918, would continue until Aug. 31 of the present year.

Action was the result of an application of the company to increase rates.

Bridgeton Gas Rates Increased

The rates for gas in Bridgeton, N. J., are increased as of the 18th of February.

The ordinary consumer will pay $1.30 per 1,000, an increase of 15 cents over the rate which has been effective for some months.

The following statement has been issued by the company:

In the matter of the application of the Bridgeton Gas Light Company for approval of further increase in rates, the Board of Public Utility Commiissoners have filed a report dated Feb. 18, 1919, in which the company is given permission to file the following schedule of rates, effective from the date of the report, viz:

First 25,000 ft. of gas used in a month, $1.30; next 25,000, $1.25; next 25,000, $1.20; next 25,000, $1.15.

Higher Rates to Be Charged by Los Angeles and Southern California Companies

The Los Angeles Gas & Electric Corporation and the Southern California Gas Company will increase the rates on gas from 68.32 cents per 1,000 cu. ft. to 75 cents per 1,000 cu. ft. beginning March 1. The State railroad commission recently granted the right to raise the base rates on account of an alleged greatly increased cost in operating expenses and oil.

Gas to Cost 25 Cents More in Oshkosh, Wis.

Beginning on March 1, consumers of gas in the city of Oshkosh, Wis., will pay twenty-five cents per 1,000 ft. more than they have paid for several years past. An order to that effect has been issued by the Wisconsin State railroad commission.

The new rate will not apply on the February bills to be rendered March 1 but will take effect on bills paid April 1. The new schedule is as follows, based upon the consumption for the period between meter readings:

	Gross	Discount (If paid by 10th)	Net
First 15,000 cu. ft..	$1.50	$0.25	$1.25
Next 35,000 cu. ft..	1.40	0.25	1.15
All over 50,000 cu.ft.	1.25	0.25	1.00

Chairman of Missouri Public Service Defends Action of Commission in Raising Rates

William G. Busby, chairman of the Missouri Public Service Commission, defended the action of the commission in raising the rates charged by various utilities during the war at a public hearing in Jefferson City, Mo., recently, on bills pending in the legislature for amending the Public Service Commission Law so as to deprive the commission of the power to change franchise rates.

"But for this policy," Mr. Busby

said, "public utilities all over the State would have been bankrupt and in the hands of receivers. The increases were not for the benefit of the utilities, but to provide service for the public."

Mr. Busby said, however, that all rate increases granted during the war were temporary, and that it was the purpose of the commission to lower rates as soon as operating expenses of the utilities would permit.

Port Huron Company Seeks Increased Rates

Another attempt is being made by the officials of the Port Huron (Mich.) Gas & Electric Company to get an increase in rates and a letter has been sent to the city commission asking that arbitrators be named to report as to the validity of the company's assertion that it is losing money. Several months ago city officials offered to permit the electors of the city to pass on an increase. The gas franchise requires that an increase must receive the sanction of the city commission or the electors.

Stockholders of Providence Company Vote to Make Application for Bond Issue

Stockholders of the Providence (R. I.) Gas Company voted at their annual meeting to apply to the General Assembly for authority to issue $8,000,000 bonds.

It is the first time since the organization of the company that authority to float a bond issue has been sought. The present authorized capital of the company is $10,000,000.

The stockholders also voted to ask the General Assembly to amend its incorporation act so as to fix the voting power of stockholders at one vote for each share of stock owned.

The annual report of the board of directors showed that the company sold 2,172,059,000 cu. ft. of gas during 1918, an increase of slightly more than 4 per cent over 1917.

Net earnings of the company for last year were $111,406, with no allowance deducted for depreciation. This net figure represented but 18 per cent on the $6,300,000 outstanding capital stock.

From April 1 to Sept. 1 the operating costs of the company, not including depreciation exceeded income by practically $70,000.

Peanut Butter Makers Use Gas for Roasting

One of the newest enterprises to use gas commercially for the roasting of peanuts from which to grind peanut butter, is the Southern Cotton Oil Company, opposite Fort McPherson, Atlanta, Ga. C. J. Weinmeister, superintendent of distribution of the Atlanta (Ga.) Gas Light Company, says the service had to be furnished by a special one-inch high pressure line 500 ft. long. Gas was turned on Feb. 25.

Laclede Company Granted Permission to Issue Bonds

The Laclede Gas Light Company of St. Louis has been granted permission by the Public Service Commission of Missouri to sell $10,000,000 first mortgage gold bonds to retire an issue maturing May 1, 1919. The new bonds are to bear not to exceed 7 per cent interest and to be sold at not less than 96½.

Ex-Service Men to Be Employed in Gas Education Campaign by Salem Company

Manager John L. Tudbury of the Salem (Mass.) Gas Light Company, has inaugurated a campaign which has for its principal object, the placing of modern gas appliances in the homes of gas consumers in the vicinity of Salem. Incidentally it provides employment for several soldiers and sailors who have selling ability and who have not been able to obtain other employment since their return home from the service of their country. Applications for positions as solicitors in this selling campaign accepted only from ex-service men.

These young men receive thorough instruction in everything pertaining to gas appliances and will then begin a house-to-house canvass of the entire city imparting to householders the information thus obtained, which in many instances will result in the sale of a range, a water heater or some other article of a gas burning nature.

The public will be afforded an opportunity to purchase heaters and ranges upon an easy payment plan. The campaign began Monday, March 3, and Manager Tudbury predicts that the young soldiers and sailors will prove to be successful solicitors.

Home Lamp Department of Boston Consolidated Company

One of the most interesting and important branches of the Boston Consolidated Gas Company is the department called the Home Lamp Department. This is located in a building by itself at some distance from the main office. The department was organized in September, 1916, for the purpose of improving the lighting service at the homes.

Men who are given positions here have a special training. When a man applies for a job his past record is looked up. If all is satisfactory, he is instructed for some time at the office before he is sent out on the road. When this instruction is finished he is sent out with an older employee who explains the business to him. Every morning each man is supplied with a kit containing fixtures and all necessary paraphernalia. Every evening he reports at the office. Each week his stock is balanced and an account taken of everything expended.

Unaccountable deficits are deducted from the man's wages.

The work of the department is confined to the inspecting of lighting fixtures in the homes. The city is divided into districts—thirty-five districts, one man being assigned to each district. A house-to-house canvass is made for the purpose of locating any troubles and defects with the fixtures, and while on the canvass the inspector remedies these troubles and renews the necessary supplies. The inspector is also furnished with a list of complaints which have come in from homes in his district, and which he must attend to. A complaint received on one day is taken care of within twenty-four hours. Customers are invited to report all troubles which they have with lights. Where the light has gone beyond repair a new light is recommended.

Incidentally the inspectors sell as well as regulate and adjust, but they are instructed to make no attempts to sell until all complaints have been attended to. There has been a marked success during the past three years in displacing old types of burners along with the open flame burner, also displacing many electrical installations. In many homes C.E-Z lights numbering from twenty-five to one hundred in a home have been installed. These installa-

tions have proved very satisfactory and have caused very little trouble in the way of complaints. A campaign on semi-indirect fixtures has just been started, and the future for semi-indirect lighting looks very promising. Semi-indirects, gas irons and Rutz lighters are installed on demonstrations or usually left for two or three days, when the salesman calls and closes the sale. Very seldom does an appliance which has been put in on demonstration have to be removed.

The work of the department is divided among gas fitters, supervisors and lighting inspectors. The gas fitters attend to all hanging of fixtures, connections of irons and piping work. The supervisors answer all special complaints for the adjustment of irons, lighting fixtures that are beyond the average lighting inspector, and semi-indirects. The lighting inspectors make the house-to-house canvass, adjusting and regulating all fixtures in the homes, and selling.

When the department was first organized many complaints were received due to improper adjustments and troubles with inferior lighting fixtures. A campaign of education was started for the purpose of bringing to the attention of the consumer the importance of having the proper fixture in order that the proper lighting should be secured. The result of this campaign has been that the average consumer to-day looks towards the Boston Consolidated Gas Company for advice in all matters pertaining to their lighting fixtures. In view of this fact the importance of such a department in connection with a large gas company is obvious.

Increase Allowed Alton Company

The Alton (Ill.) Gas & Electric Company has been authorized to increase its rates for gas service from $1.25 per 1,000 ft. to $1.50, effective Mar. 1, by order of the Public Utilities Commission of Illinois.

Queens Borough Company Has Deficit

A falling off in the earnings of the Queens Borough Gas & Electric Company of Far Rockaway, N. Y., since 1916, is shown in the report of the company just filed with the Public Service Commission. The report also shows that during the past year there has been a deficit of $68,231, an increase of nearly $69,500 over the deficit for 1917.

Cities Service Company Earnings

Effects of the heavy snowstorm which swept the Mid-Continent field the last of December rendering roads impassable, and practically shutting down all field work by oil companies, are reflected in the Cities Service Company earnings statement for January, 1919, but despite these handicaps the earnings statement for the first month of the new year must be considered as quite satisfactory.

Gross income of Cities Service Company for January, 1919, was $1,853,598, while net income available for dividends, after payments of expenses and interest charges, was $1,683,869. After providing for preferred dividends there was left a balance for the month available for dividends on common stock, reserves and surplus of $1,344,059.

For the twelve months ended Jan. 31, 1919, gross income of Cities Service Company was $22,102,203, compared with $19,429,506 for the preceding twelve months, with net income after payment of all expenses, taxes and interest of $21,169,585. The balance available for dividends on the common stock, reserves and surplus for the twelve months was $17,127,808, compared with $15,301,332 for the twelve months ended January 31, 1919.

The above figures of income of Cities Service Company, after what are believed to be ample reserves, have been charged from profits of subsidiary corporations for payment of all Federal Excess Profits Taxes and Income Taxes, and, therefore, should be considered as the net earnings of subsidiary corporations accruing to Cities Service Company after payment of all such taxes.

	12 Months Ending Jan. 31, 1919	12 Months Ending Jan. 31, 1918	Month of Jan., 1919	Month of Jan., 1919
Gross earnings	$22,102,203.24	$19,429,505.52	$1,853,598.25	$2,031,462.18
Expenses	552,241.69	366,470.86	61,727.03	30,970.93
Net earnings	$21,549,961.55	$19,063,034.66	$1,791,871.22	$2,000,491.25
Interest on debentures	380,376.64	2,770.48	108,002.35	205.23
Net to stock	$21,169,584.91	$19,060,264.18	$1,683,868.87	$2,000,286.02
Dividends, preferred stock	4,041,776.50	3,758,932.15	339,809.50	332,307.50
Net to common stock and reserves	$17,127,808.41	$15,301,332.03	$1,344,059.37	$1,667,978.52
Debenture fund				$452,838.98
Contingent fund				652,029.13
Stock surplus				1,993,950.21
Surplus reserve				5,707,208.25
Surplus				28,677,821.25
Total surplus and reserves				$37,483,847.82

	12 Months Ending Jan. 31, 1919		12 Months Ending Jan. 31, 1918
Number of times preferred dividend was earned	5.24		5.07
Per cent earned on average amount of common stock outstanding	60.14		60.41
Preferred stock outstanding:			
In hands of public	$68,065,091.74		
Owned by company	2,432,964.62		
		$70,498,956.36	
Common stock outstanding:			
In hands of public	$28,816,368.70		
Owned by company	3,749,533.41		
		32,565,902.11	
Series B 7 per cent convertible debentures:			
In hands of public	$12,201,830.00		
Owned by company	140,350.00		
		12,342,180.00	
Series C 7 per cent convertible debentures:			
In hands of public	$2,229,000.00		
Owned by company	$15,271,000.00		
		17,500,000.00	

New Catalogue Issued on Cast Iron Pipe

The Walter A. Zelnicker Supply Company of St. Louis has just issued its Bulletin No. 260, listing a large variety of new and used cast iron, spiral riveted and wrought iron pipe and pipe cutting and threading machines. The company also recently issued a special bulletin No. 259 listing a great number of tanks of all sizes and descriptions.

Gas Sales Association of New England Held Regular Monthly Meeting Feb. 14.

(*Continued from page* 240.)

equipment is no more than the cost of the old-fashioned and far less serviceable coal and gas combination outfit.

How does the total revenue from the all-gas kitchen compare with the revenue from the kitchen where the coal and gas combination range is installed?

As to yearly gas consumption, the all-gas burning equipment gives a yearly consumption of 78,000 cu. ft., very evenly divided as to monthly demand, whereas the combination coal and gas burning outfit will not consume over 24,000 cu. ft. per year, and the demand is almost totally during six warm months. In other words, by selling the twelve months' gas-burning kitchen equipment the yearly gas consumption is increased an average of 225 per cent per household equipped. The above figures are averages secured from data from a number of representative gas companies.

This increase, at the rate of $1 per thousand for gas, represents a net increase of $54 per year per family. Is it not worth much aggressive sales effort to secure such an increase without expending one cent for new mains or new plant equipment?

Can the average gas company sell and install the instantaneous automatic gas water heater? Yes, by all means. A demand for continuous hot-water service is natural, existent in everybody's mind. A device which, with perfect safety and without attention, heats water to order, instantly, cheaply, day in and day out, sells itself. It can be sold in winter as well as in summer, as witness the several very successful selling campaigns conducted as late as December. One good selling point to remember is that the instantaneous automatic gas water heater heats water at a less cost per gallon than can the tank heater. The installation is simple and the work can be done by any fitter.

In conjunction with the question of sale it is interesting to inspect a table figured from ratings furnished by the respective manufacturers of gas and coal appliances, and showing the comparative costs of heating water by gas and by coal. Gas is figured at $1 per thousand for 528 B.t.u. standard, and coal is figured at $10 per ton.

	Four Members in Household	Six Members in Household	Eight Members in Household	Ten Members in Household	Sixteen Members in Household
Cost of gas per day.....	$0.12	$0.19	$0.24	$0.30	$0.49
Cost of gas per month.....	3.50	5.50	7.25	9.00	14.75
Cost of coal per day.....	0.17	0.17	0.20	0.20	0.40
Cost of coal per month.....	5.00	5.00	6.00	6.00	12.00
Estimated consumption in gal- per day	100	150	200	250	400

It will be noted that in cases where the demand for hot water is small, as in the average home, the cost of heating water by gas is less, while in cases of larger demand the difference is so slight that it is hardly necessary to consider it, especially when the added convenience and reliability of the automatic gas heater are taken into account.

Maintenance Service Unnecessary with Automatic Heater

What maintenance service must the gas company assume? The instantaneous automatic gas water heater, being entirely automatic, receives absolutely no attention on the part of the user. Yearly inspection is enough for the average installation. It pays the gas company well to give proper yearly attention to a device that may be counted on for a monthly consumption of 4,000 cu. ft. In addition, the properly conducted maintenance service, under the direction of a capable superintendent, should be entirely self-supporting. So the maintenance service is not a burden on the gas company. It is cost-free insurance that the gas output will not be diminished through replacement of gas-burning appliances by coal-burning appliances.

In short:

Winter valleys are caused by the use during the cold weather of coal for heating, cooking and water heating.

To remedy this state of affairs the coal range must be removed from the kitchen.

The sale of gas ranges and tank heaters has not and will not succeed in ousting coal for winter use.

The installation of instantaneous automatic gas water heaters has and will do away with boilers, which will in turn deprive the coal stove of one function—water heating.

Gas will then be used the year 'round for water heating and cooking. If necessary, sell a gas room heater or gas radiator for heating the kitchen.

The twelve months' gas-burning kitchen is the remedy to straighten out the monthly output curve.

The instantaneous automatic water heater is the foundation stone of the service wall that supports the twelve months' gas-burning kitchen.

Salesmanager Reports Sale of Blodgett Oven for New Bakery

The sale of a No. 215 Blodgett oven, for baking rolls, to a new bakery on Ponce de Leon Avenue, Atlanta, Ga., was made by I. H. Morehead, Jr., gas sales manager of the Atlanta Gas Light Company.

A Series of Window Displays

A gas company in a small suburban town near Boston has been running a most interesting series of window displays called "The Evolution of Lighting." The first week the window represented a primitive cave, with primitive man figured as trying to see by the light of a small fire. Next came the candle light. A man and woman were seated at opposite ends of a table on which were some small and rather feeble candles. A placard explained that the discovery of the combustible properties of tallow was a great benefit to humanity, and this kind of lighting was considered very remarkable in its day. The next window display was on the subject of kerosene lighting. First there was the kerosene lantern, then the kerosene lamp. A man was shown in the background holding a kerosene

lantern, and on the table was a small lamp. Explanations something to this effect was given—that kerosene lighting was an improvement over candle lighting because of the possibilities of utilizing a glass chimney, which reinforced the light and eliminated some degree of flickering. The last display was on gas lighting. The window showed a living-room lighted by various sorts of gas lights—four-arm burners, C.E-Z lights, and semi-indirects. The value and improvement of each over the light it was tending to displace was explained. People were told to "light with gas. Save eyesight. Avoid dangers from fire. Have a well-lighted home."

Kansas City Assured of a 10 Year Supply of Natural Gas

Samuel S. Wyer Warns Against Waste

"Kansas City's natural gas supply is sufficient to last ten years if rightly conserved," Samuel S. Wyer, former chief of the natural gas conservation bureau of the United States Fuel Administration, said in an address before the Rotary Club luncheon at the Hotel Baltimore. Failure to conserve the gas supply necessarily means the time limit will be brought nearer, Mr. Wyer declared.

Beginning with the sweeping assertion the natural gas situation is not understood, Mr. Wyer submitted figures showing the great wastage of natural gas.

"The amount of gas wasted in the United States is equal to the amount used," he asserted. "We are wasting 800 billion cu. ft. of gas yearly. In order to make its value understandable it is necessary to estimate it on the basis of daily waste. The best information obtainable shows the daily waste to be $3,000,000.

"Since 1904, when natural gas began to be used in Kansas City, the loss or waste has exceeded the amount consumed," Mr. Wyer continued. "The loss in bringing the gas from the well to the consumer here has been approximately 300 billion cu. ft. and the consumer itself has wasted 200 billion ft. more. In order to replace the amount wasted in getting the gas here it would require the output of every artificial gas plant in the United States for two years."

Contract Submitted for Dover

Dover can obtain a five-year contract at an advance of 20 per cent over its domestic gas rate of 35 cents with a clause in the contract allowing the East Ohio Gas Company to terminate it with six months notice.

Massachusetts Gas Earnings

The combined net earnings available for dividends of the subsidiary companies of the Massachusetts Gas Companies for January were $292,677, a decrease of $37,297 or 11.30 per cent compared with corresponding month a year ago.

January earnings compare:

	1919	1918	1917
Boston Consolidated Gas Co.	$158,124	$125,687	$144,784
East Boston Gas Co.	*2,125	2,514	5,183
Citizens' Gas Light Co.	4,765	4,597	2,688
Newton & Watertown Gas & Light Co.	1,290	11,304	11,138
Total	$162,054	$144,103	$163,793
New England Fuel & Transportation Co.	123,445	141,774	.....
New England Coal & Coke	7,179	44,098	48,942
Total	$130,623	$185,872	$178,293
Grand total	$292,678	$329,975	$342,087

*Deficit.

Gas Water-Heaters to Be Installed at Fort McPherson Hospital

The Atlanta (Ga.) Gas Light Company has signed a contract for the installation at Fort McPherson of two 500-gallon Ruud storage systems, for supplying hot water to special apparatus used in treating patients of the general hospital.

Assessments of Nashville Company in Future to Be Made by Railroad Commission

Chancellor James B. Newman, in an order recently handed down, permanently enjoined Jesse Webb, Davidson County tax assessor, and Vernon H. Sharpe, city tax assessor, from further assessing any property of the Nashville (Tenn.) Gas & Heating Company.

The order also declared all assessment included in the suit of the gas company against the tax assessors be void.

Two years ago the Legislature passed a law requiring the State Railroad Commission to assess the gas companies of Davidson and Hamilton counties. In spite of this law the assessment was made by the city and county assessors of both counties and of Nashville and Chattanooga.

Canton Gas Rate Increase Suspended

The public utilities board has suspended until June 29, 1919 the proposed advance gas rates of the Canton Gas & Electric Company in the city of Canton, Ill.

THE KENTUCKY GAS COMPANY has increased its capital stock from $100,000 to $300,000.

Personal Notes

J. J. BURNS, superintendent of the commercial department of the Laclede Gas Light Company of St. Louis, has been elected a member of the board of directors of the Children's Lunch Association which is supplying school children in the slum districts with warm noon-day luncheons at five cents or less per meal.

CARL RUCKDESCHEL, meter inspector in the gas operating department of the Blackstone Valley Gas & Electric Light Company, Woonsocket, R. I., gave a very interesting and instructive talk Feb. 28 to the members of the Woonsocket Gas & Electric Employees' Club at the club rooms on "Transmission and Distribution of Gas." Mr. Ruckdeschel explained the manufacture of coal gas and carbureted water gas, and defined clearly the transmission and distribution of gas from the time it left the holder until it reached the consumer's appliances. He also

told his audience the material gas mains and services were made from, also the proper method of installing mains and connecting services. Many questions were asked Mr. Ruckdeschel, and Forest J. Nason, superintendent of the gas works, on gas matters, which they explained very clearly. After the meeting refreshments were served, followed by a social hour.

EARL S. FINNEGAN, of Belford, N. J., has been appointed manager for the Standard Gas Company at Keyport. He has been connected with the Freehold office of the company.

E. L. MOORMAN, for eleven years associated with the Beloit (Wis.) Water, Gas & Electric Company, first as auditor and later as secretary, will sever his connection with the utilities company on Mar. 15 to accept a position as general sales manager of the Highway Trailer Company, Edgerton, Wis. During his association with the Beloit corporation Mr. Moorman has shown business and executive ability of a high order and his training makes him an important addition to the executive staff of the Edgerton concern. He will have charge of all sales for the big trailer company.

CHARLES D. REICHEL, head of the information department of the Union Gas & Electric Company, Cincinnati, Ohio, was recently given a surprise party at his home on Peete Street, by a number of the employees of the company, the occasion being Mr. Reichel's forty-sixth birthday anniversary. Mr. Reichel has been an employee of the company for twenty-seven years, during which time, by his unfailing courtesy and painstaking, he has made many friends for the company as well as for himself. According to fellow employees the honor of receiving the highest vote as the most popular male employee of the company in a recent popularity contest was not an empty one. In the midst of the festivities Mr. Reichel was given several presents.

THE CONTRA COSTA GAS COMPANY, Pittsburg, Cal., at its annual meeting elected the following officers: S. Waldo Coleman, president; L. W. Pryor, secretary and treasurer, and George P. Egleston, new business manager.

EDWIN R. BELL, of Haddonfield, N. J., has been elected president of the Sussex Gas Company at Seaford.

THE DAYTON (OHIO) GAS COMPANY, at its recent annual meeting of the stockholders, elected the following officers: Charles A. Ward, president and treasurer; F. S. Heath, first vice-president; George Light, second vice-president and manager; C. C. Burr, secretary; E. D. Batdorf, assistant secretary, and Edward Light, superintendent. The old force of directors was re-elected as follows: B. S. Daws, F. S. Heath and T. J. Jones, of Columbus; C. H. Ward, George Light, George Wood, Carl Loy, John P. Breen, R. R. Dickey, A. C. Dickey, W. D. Graves and D. C. Harley, Dayton.

CLARENCE GRACE, managing editor of the *Gas Journal* of Canada, died Feb. 25 from the effects of influenza.

HUGH MCGRAY, formerly in the employ of the Brooklyn Union Gas Company, died Mar. 5 at his home, 1130 Bushwick Avenue, Brooklyn, N. Y.

JOHN B. FINLEY, one of the directors of the Monongahela & Bellwood Natural Gas Company, Monongahela City, Pa., Corona (Ala.) Iron & Coal Company and various other prominent institutions, died at his home, 5408 Beacon Street, Pittsburgh, Pa., Feb. 27. Among other large enterprises promoted by Mr. Finley was the Monongahela River Coal Company, which he organized about fifteen years ago. This company for many years controlled the river coal interests and was one of the most powerful organizations of its kind in the country.

GEORGE W. ACKERMAN, foreman of the gas meter shop of the Atlanta (Ga.) Gas Light Company and in the employ of the company twenty-eight years, died Feb. 17 at his work. Mr. Ackerman had arrived at the shop from home just a few minutes before, feeling fine and fit for his duties of the new day. Heart failure was the cause of his death. He was the oldest employee of the Atlanta Gas Light Company at the time of his death. Beginning more than a quarter of a century ago as a meter-reader, he passed later to the meter repair shop and stayed there till the end of his time, growing in service as the shop itself grew.

Societies and Associations

THE NEW JERSEY STATE GAS ASSOCIATION will hold its annual meeting in the offices of the Public Service Corporation, 222 East State Street, Trenton, N. J., on Friday, April 25, at 10.30 a. m.

THE FLATBUSH GAS COMPANY EMPLOYEES' ASSOCIATION held their sixth annual entertainment and dance in the auditorium of the Cortelyou Club, Brooklyn., Mar. 1, with a very large attendance. Two one-act plays in the place of the customary three-act comedy of other years were successfully presented. "My Son Arthur," a comedy, was the first play, which was followed by a noisy introduction of the boys who have returned from service. The final playlet was entitled "After the Honeymoon," a farce. A dance followed the program, making the affair the most successful in the history of the club. A fine souvenir program was dedicated to the sixty-two employees in the service.

THE MUTUAL AID SOCIETY OF THE CAMBRIDGE (MASS.) GAS LIGHT COMPANY met at Elks' Hall, Feb. 15, where a cabaret and dance took place. Variety in art was the keynote of the evening's entertainment. The Gas Light Trio sang with luminous harmony, while many from Boston and Cambridge theatres appeared.

Construction Notes

Two New Benches of Sixes Completed at Spartanburg

Many Improvements Contemplated — Investment of Approximately $40,000

The South Carolina Light, Power & Railways Company of Spartanburg, S. C., has completed two new benches of sixes built by the Parker-Russell Mining & Manufacturing Company.

The company also contemplates a 6-in. pipe line approximately four miles long. This line circling around the south side of Spartanburg, tying in all old mains, which will improve the system greatly.

These improvements will mean an expenditure of approximately $40,000. The company is also contemplating the erection of a new gas holder.

T. V. Sanderson is superintendent of the gas department of the company.

Dehydrator Plant of Empire Company Completed

The Empire Gas & Electric Company's new concrete dehydrator on the Boyer tank farm in Butler County, Bartlesville, Okla., which is said to be the largest in the world will soon be ready for use. The plant, which has been under construction for the past six months, will be able to treat 40,000 barrels of oil daily.

The new plant will be a central one and will displace about 150 steaming plants scattered over the different leases in the El Dorado field. Twenty-four men will be able to do the same work formerly done by more than 150 men. Boilers at the new plant with 1,000 h.p. will displace 150 field boilers whose rated power was close to 5,000 h.p.

The dehydrator itself is composed of five separate compartments or tanks. The first three are 20 ft. wide by 150 ft. long and are placed side by side. The two remaining ones are 20 by 50 ft. in dimensions.

Four large 55,000 barrel tanks on the Boyer tank farm will be used for storage of the oil, two for the impure product and the other two for the oil after it has been treated.

Improvements Made at Westfield Municipal Plant Will Result in Better Quality of Gas

The installation of a new purifier box at the Westfield (Mass.) Gas & Electric Light works has been completed and is now in operation. The coal conveyor will also be in operation at an early date. This will eliminate the necessity of employing men to unload the coal by the slower process of hand and shovel. The poor quality of the gas served thus far was due to the fact that too much sulphur was left in the gas without being purified.

Baltimore Company Erecting New Holder

The Consolidated Gas, Electric Light & Power Company of Baltimore, Md., has started the construction of a large steel gas holder. It will be an addition to the plant at Spring Gardens.

In its construction 7,720 steel plates will be used, with the necessary angles, channels and beams, and 1,090,000 rivets will be required to connect the plates.

Although the present gas-storing facilities at Spring Gardens are sufficient under normal conditions, they are inadequate in case of an emergency, and especially now that the city has enlarged its boundaries.

It is expected that this work will be completed by July 15.

Coke Conveyor at Atlanta Will Be Rebuilt on New Lines

After having been in service continuously since 1913, the coke conveyor at the plant of the Atlanta (Ga.) Gas Light Company plant is to be rebuilt on different lines. Instead of being in one length, as at present, between the coke-bin and the water-gas coke buggies, the new conveyor will be in two sections, thus relieving some of the strain of operation. The design of the trough will be quite different. Instead of the present wearing plates fitted to the bottom, it will have light industrial rails riveted there.

Two Miles of Gas Mains Now Serve Ft. McPherson

The last of the five gas mains into Fort McPherson, ordered one after the other, is just now being finished, says C. J. Weinmeister, superintendent of distribution of the Atlanta (Ga.) Gas Light Company. The post will then be served by three two-inch lines and two three-inch lines, all high pressure, and gas service will be on tap in all the old buildings and practically all of the new ones. Still another extension is planned for the near future.

Approximately two miles of mains, with at least their full average city complement of service lines, are now carrying gas throughout the reservation, says Mr. Weinmeister. One of the mains runs to the post fire station, away at the rear, near Campbellton Road.

Southern California Company Extending Its Gas Mains in Redondo

The Southern California Gas Company, through its manager, John Murray, has started on a development campaign which will be of benefit to many residents who heretofore have not been within the territory served by a gas system. The work at present is a 2,500 ft. extension running east on Garnet Street, south on Juanita Avenue and south on Lucia Avenue, Redondo, Cal.

Extensive Improvements to Be Made at Cape May Plant

Approximately $30,000 Will Be Expended

J. H. Orr, superintendent of the Cape May (N. J.) Illuminating Company, stated recently that the owners of these properties have authorized the expenditure of approximately $30,000, all of which will be expended within the next sixty days. The improvement will all be completed long before the heavy demands of the summer are placed upon both plants.

The above expenditures will include new purifiers at the gas works, a new condenser for cooling the hot gas coming from the machine, a new station meter, and a booster system adequate to take care of the pressure conditions covering the entire west side of the city. The rehabilitation of the storage holder is also included in the above expenditures.

During 1918 it was practically impossible for the company to get any deliveries of material, and with this in mind, negotiations were entered into with the United States Government along the lines of procuring priorities on the necessary apparatus and material and also with the idea that the Government, with their excessive demands at Wissahickon Barracks and the Coastal Air Station, might give some assistance in the financing of these improvements. These negotiations were still pending at the time when the armistice was signed, and the Government, being no longer interested in seeing these improvements made, very naturally dropped the entire matter. The company immediately decided to proceed with these improvements without any assistance from the Government and orders were placed for a large portion of the improvements above mentioned.

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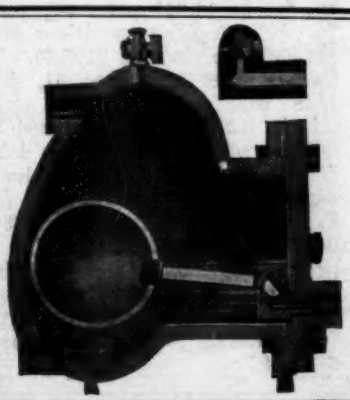
GENERAL STEEL CONSTRUCTION



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New Gasser in Elk City Field Brings Capacity Up to 700,000,000 Cu. Ft.

The Elk Valley syndicate brought in the second big gasser on the Baum farm in the Elk City field, Kansas, March 2, which is estimated at 26,000,000 cu. ft. This makes the twenty-fifth gasser in this field and brings the daily capacity of the field up to more than 700,000,000 cu. ft.

Red Cross Urges Employers to Be Ready for Men When They Come Back

The important business of finding work for several million men must be undertaken with a sane outlook, a spirit of cordial co-operation and a keen sense of the fact that discharging a civilian to take on a soldier will not help the labor problem.

Red Cross Home Service sections render financial and personal aid in returning these men to their homes. These sections also co-operate with the United States Employment Service, upon whom devolves the task of finding jobs for men discharged from the service.

Employers at ports of debarkation or in places adjacent thereto are requested to co-operate in an effort to give preference in employment to men whose enlistment was from their own district.

Failure to do so results in such congestion as exists at the present time in New York City, where positions are already filled by out of town men, with New York regiments still on the way home.

The Red Cross presents to employers of labor these concrete suggestions:

Be ready for them when they come back.

Take care of the men from your own locality.

Give him the job for which he is suited.

He wants work, not sentiment.

Co-operate with the local agency officially appointed to secure employment for the men.

Welcoming and applauding the soldier is not all—he wants work.

Help the Government to return the soldier to his old place in civil life.

The stir and romance of war is over—let him know he still has your support.

THE EASTERN PENNSYLVANIA OIL & GAS COMPANY, mine and operate for oils, gas, etc., $100,000; W. F. O'Keefe, J. H. Dowdell, George G. Stiegler, local, Wilmington, Del.

THE PRODUCERS' OIL & DEVELOPMENT COMPANY, acquire oil and gas lands and develop same; $60,000; W. I. N. Lofland, Frank Jackson, Charles H. Jones, Dover.

COMMONWEALTH OIL & GAS COMPANY, deal in and with gas, coal and timber lands; $400,000; Herbert E. Latter, P. B. Drew, C. L. Rimlinger, Wilmington.

THE SOUTH PENN OIL COMPANY has declared the usual quarterly dividend of $5 a share, payable Mar. 31 to stock of record Mar. 12.

THE STANDARD GAS & ELECTRIC COMPANY has declared the regular quarterly dividend of 1½ per cent on the preferred stock of the company, payable March 15 to stockholders of record Feb. 28.

THE CENTRAL NATURAL GAS COMPANY'S report for 1918 shows a net income of $4,713 only, and a heavy reduction in the surplus, as follows:

Operating revenue	$8,428.52
Operating expenses	4,621.96
Net operating revenue	$3,806.56
Non-operating revenue	907.00
Gross corporate income	$4,713.56
Net corporate income for year	$4,713.56
Dividends	1,592.00
Miscellaneous deduction from income	21,000.00
Surplus on Dec. 31, 1917	51,314.31
Surplus on Dec. 31, 1918	33,435.87

THE LACLEDE GAS LIGHT COMPANY recently declared a quarterly dividend of 1¼ per cent, payable Mar. 15.

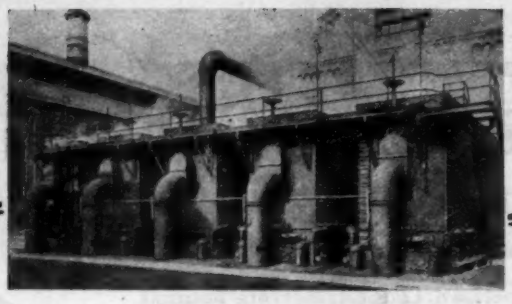
THE UNION NATURAL GAS CORPORATION'S annual report shows a decrease in earnings as compared with 1917. Reporting for the 1918 year comparisons are:

	1918	1917
Gross earnings	$7,560,976	$8,076,613
Net income	2,603,982	3,574,677
Dividends	984,000	984,000
Depreciation	908,986	858,188
Surplus	665,993	1,495,189
Total surplus	8,442,557	7,718,289

THE VALLEY NATURAL GAS COMPANY reports for 1918 show net corporate income for the year of $69,479.68, and a surplus Dec. 31 of $53,476.59. Total assets of the company are given as $838,618.40. Profit and loss account as follows:

Operating revenue	$659,109.40
Operating expenses	562,878.85
Net operating revenue	$96,230.55
Non-operating revenue	710.86
Gross corporate income	$96,941.41
DEDUCTIONS	
Interest accrued on funded debt	$15,070.00
Miscellaneous deductions	12,391.73
Total deductions	$27,461.73
Net corporate income for year	69,479.68
Dividends	40,656.00
Miscellaneous deductions from income	21,088.70
Surplus on Dec. 31, 1917	45,735.61
Surplus on Dec. 31, 1918	53,470.59

THE NEW HAVEN (CONN.) GAS LIGHT COMPANY held the annual meeting of the stockhkolders recently at which it was shown that the earnings of the company for the past year show a large increase in the sale of gas and at the same time a slight decrease in the profits. This is due to the continued increase in cost of materials and especially labor, together with larger taxes. These more than offset the extra income due to the increase in price of gas in September, 1917. Towards the end of the year the necessity for another increase became apparent and ten cents was added. The present price is $1.20 per thousand gross with ten cents discount for prompt payment making the net $1.10. The more important details of the year's operations are: Quantity of gas sold and used by the company 1,813,400,800 cu. ft., an increase of 226,141,200 cu. ft., or 14.247 per cent; profits for the year from operations $402,438.95, a decrease of $103.67. The balance sheet as of Dec. 31, shows assets of $7,767,394.20. As against this in liabilities is mentioned $5,000,000 of stock, a million dollars for depreciation and a surplus of some $619,000. The increase from income in round figures was $340,000, the increase in operating expenses $351,000, the net profit from operations was $11,000, leaving a surplus after paying the 8 per cent for dividends for the past year of $3,190.95.



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It returns to you in service and economy every cent you expend for its installation.

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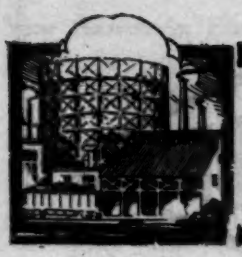
KOPPERS OVENS

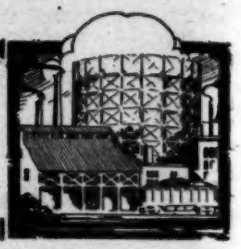
The Indiana Coke and Gas Co., of Terre Haute, Indiana, has selected the Koppers oven for an addition to its present by-product coke plant. The Koppers Company will build an addition of thirty Koppers ovens.

THE KOPPERS COMPANY
PITTSBURGH, PA.

Builders of By-Product Coke and Gas Plants



With The Equipment & Appliance Manufacturers



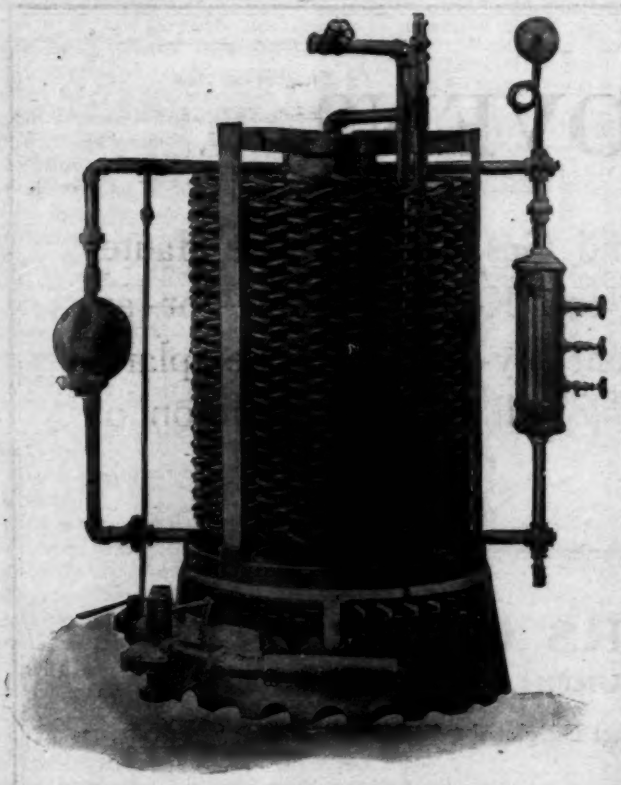
Conducted by Business Department of American Gas Engineering Journal

A Gas-Fired Boiler with an Efficiency Test of 89 Per Cent Suitable for House Heating and All Industrial Purposes

During the past few months we have been hearing a great deal about gas-fired steam boilers and the JOURNAL has published several articles on this subject.

In our investigation along this line, we went to Nyack, N. Y., to look over the Ofeldt automatic gas-fired steam boilers. These boilers consist of a central standpipe of standard boiler pipe 5 inches or more in diameter, with ½-inch bottom securely welded in. The standpipe is covered with a steel cap, from which extend three arms to the boiler cover holding the boiler proper in the cover. The cap is threaded and securely fitted to the standpipe. The work of the standpipe is to hold a reserve of water in the bottom, distribute water to the coils and hold a reserve of steam at the top, in addition to forming an important part in the construction of the boiler. The illustration shows the interior construction of the Ofeldt boiler.

The coils are made of a special grade of iron pipe, ¼ and 3/8. They are coiled at a pitch of 1½ inches, giving rapid circulation and preventing clogging. The coils are attached to the standpipe at top and bottom with right and left extension pieces. Although the coils look to be intercoiled, they are not, but simply interlocked, and by removing an extension piece at top and bottom each coil will easily come off.



INTERIOR VIEW OF OFELDT GAS-FIRED BOILER

The rapid circulation in the tubes keeps them free from sediment and corrosion. Any sediment that may form in the boiler finds its way to the bottom of the center drum, under which there is no fire to bake it fast, and from which it may be readily blown off.

These boilers are made in all sizes and are suitable for house heating and all industrial purposes. They are automatic, and require no attention after once started, and steam may be had within four minutes after lighting the fire. It is claimed

OFELDT AUTOMATIC WATER REGULATOR

to be the most economical boiler on the market using only 60 cu. ft. of gas per horsepower per hour with an efficiency of 89 per cent. They occupy very little space, the twenty-five horsepower boiler taking a space only 72 in. square.

The burner is of the cast iron type, made in sections according to size. Each section is a complete burner in itself, having its own gas intake and air mixing adjustment.

Manufacturers claim that this boiler has been tested and approved and is being sold by the leading gas companies in the country.

This company also manufactures the Ofeldt Automatic Water Regulator. It is built on the improved float principle, using a metal valve instead of rubber. The valve may be readily removed for inspection without dismantling the regulator. It is very compact and weighs only 30 pounds complete as shown.

This regulator will supply boilers up to 15 horsepower and requires no attention, and the metal valve never needs to be replaced.

F. W. Ofeldt & Sons, Nyack, N. Y., have been manufacturing water tube boilers for twenty-five years, and adopted gas as a fuel during the past few years. These boilers come fully equipped with water column and gauge, steam gauge, tri-cock, plug-cock blow-off and safety valves, automatic gas regulator.

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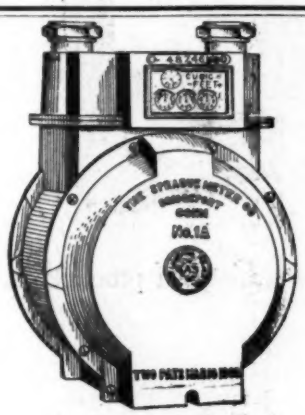

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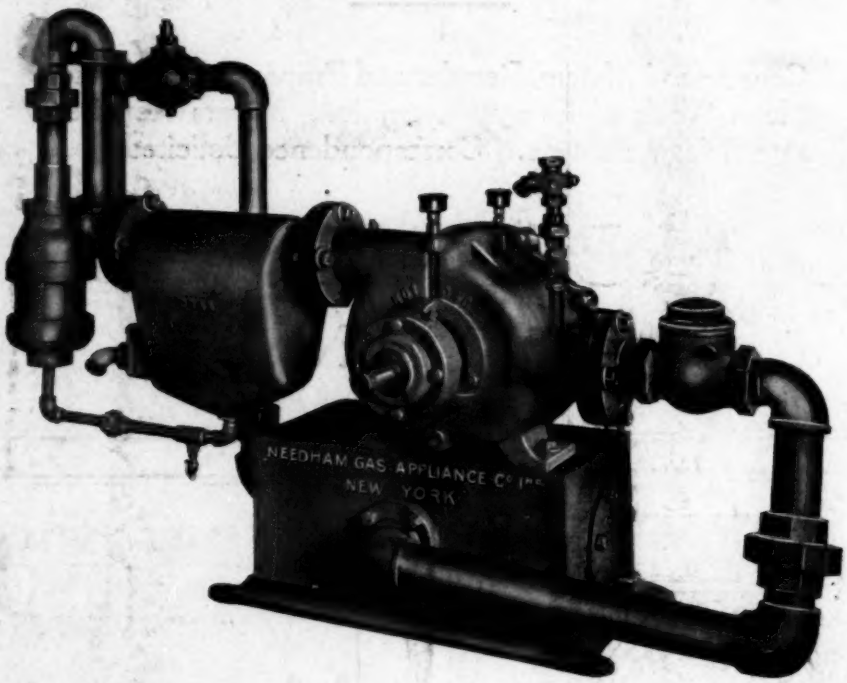

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We solicit your inquiries

The Needham Gas Appliance Co., Inc.

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